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AUTHOR Farber, Kathleen S.; Armaline, William D.
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ABSTRACT

This study assessed the influence of reflective thinking on the early field experiences of preservice teachers who later taught in urban settings that were radically different from those they experienced as students. Reflective thinking refers to consciously identifying and defining schooling and classroom problems, generating reasonable "guiding ideas" or hypotheses, and testing them through intelligent action. The study combined scholarly activity explicating and operationalizing the concept of reflectivity with quantitative and qualitative data. Fifty-six male and female education students in urban field sites were divided into a control group (n=28) given a typical early field experience and an experimental group (n=28) given an experience designed to develop reflective thinking through reflective sessions following each weekly classroom experience. Both groups kept journals and completed a narrative evaluation of their experience, and both groups were tested for logical thinking. Test results show that the control group had slightly higher logical reasoning ability than the experimental group. Analysis of the journals found that the treatment group wrote more, in greater detail and depth, and with more analysis and application of a variety of issues that affect schooling success than did the control group. The treatment group analyzed themselves more deeply in terms of understanding differences between their culture and their students' cultures. Included are 2 tables and 40 references. (JB)

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Examining Cultural Conflict in Urban Field Experiences through the Use of Reflective Thinking

Kathleen S. Farber, Ph.D.
Assistant Professor, Educational Foundations and Inquiry
Bowling Green State University
559 Education Building
Bowling Green, Ohio 43403
(419) 372-7336 (work)
(419) 893-9436 (home)

Areas of specialization: Educational psychology, urban education, and reflective pedagogy.

William D. Armaline, Ph.D.
Assistant Professor, Educational Theory and Social Foundations
The University of Toledo
366 Snyder Memorial
Toledo, Ohio 43606
(419) 537-2488 (work)
(419) 893-9436 (home)

Areas of specialization: Social foundations, urban education, and reflective pedagogy.

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Abstract

This paper reports on a study of the use of reflective thinking in early field experience, a critical component in the preparation of teachers who will be working in classrooms that are, in many respects, radically different from those they experienced as students. The study begins to lay a theoretical and empirical foundation for understanding and enhancing the transaction between preservice teachers and their professional experiences in urban settings. By combining scholarly activity explicating and operationalizing the concept of reflectivity with quantitative and qualitative data, this study sets the stage for a well-grounded research program investigating the efficacy of reflective thinking for affecting teacher and student performance in meaningful ways. Further, the results of the study raise questions and suggestions for programmatic reform in the use of field experience in teacher education.

A recent report of the American Association of Colleges for Teacher Education sounds this ominous warning: "The racial and ethnic composition of the replacement teaching force will be diametrically opposed to the racial and ethnic composition of the nation's classrooms" (p. 4). Whites today comprise approximately 75% of the population in the United States. In the 21st century Whites will comprise approximately one half of the population and African Americans, Hispanics, Asians, other cultural groups and immigrants will make up the other half (Dembo, 1991). In some states such as California this demographic shift is fast becoming a reality. Public schools are affected by this change as the "minority" school-age population increases, in some cases, from 20% to over 50%. For 2 to 4 million students within this group, English (the language used in most schools) is not the native language (Gutierrez, 1990, p. 128). Further, most of the teachers with whom these students interact are White, English speaking, and middle class.

Teachers from microcultural populations comprise only 5% of the teaching force (Schuhmann, 1990, p. 148). This percentage will more than likely not increase appreciably, because 90% of students enrolled in teacher education programs are white, middle to upper middle class, and English speaking, with 70% of this group being females. Universities are typically faced, then, with preparing students who are from predominantly White, middle class, rural or suburban backgrounds to teach in urban classrooms populated mainly by poor, Hispanic, and African American youth. In addition, most of these preservice teachers hope to teach in middle class schools like those in which they were educated. Unless preparation programs can create a critical mass of educators with the skill and will to teach in culturally diverse urban schools, talented and committed teachers will lose heart and leave the profession, forfeiting the schools to those who lack the personal and intellectual resources to find alternative employment (Dworkin, 1985).

Persistence rates among education students and graduates are already a serious problem. Many preservice teachers who complete certification programs do not get teaching jobs, and even among those graduates who are employed as teachers, many fail to make a successful adjustment and leave the profession within 3 to 5 years. Further, nationally the brightest teachers are the first to leave

teaching (Clark, 1986; Schlechty & Vance, 1983), and teachers in schools with racial and cultural make-ups very different from their own are among the first to "burn out" (Dworkin, 1985).

Early Field Experience

One widespread practice designed to induct preservice teachers into the culture of urban schools is to engage them in field experience. Field experiences provide preservice teachers with opportunities to interact with students and school personnel in the school and community setting. Of particular interest in the line of research proposed here are field experiences designed to occur early in the preservice teacher's preparation, often within the first year of university study.

Webb (1981) found these early field experiences offered by 99% of the 270 institutions studied. The activities included, among other things, observation, tutoring, small group instruction, and the handling of routine clerical tasks associated with teaching. It is often claimed that the immersion into the world of teacher work afforded students by these experiences lessens the shock when these students assume control of their own classrooms. Further, it is also claimed that these experiences help students make career decisions, weeding out those students who are not committed to the teaching profession (Cronin, 1983). Finally, it is assumed that this experience will help preservice teachers bridge the cultural gap between their own backgrounds and those of their students.

The view that the best way to improve teacher education (and by extension the education of children) is through preservice teachers working in the field is widely held (Becher & Ade, 1982), but researchers investigating the effects of early field experiences report conflicting results. (See Waxman & Walberg, 1986, for a detailed review.) Some researchers report positive effects; others report no effects. Still others (Gibson, 1976; Hoy & Reese, 1977; Iannaccone, 1963; Tabachnick, 1980) report that early field experiences seem to promote simplistically utilitarian perspectives on teaching--focusing on the "How?" of teaching to the exclusion of the "Why?" Becher and Ade (1982) found that after their early field experiences preservice teachers became increasingly authoritarian, rigid, controlling, restrictive, custodial, and impersonal and decreasingly student-centered, accepting, and humanistic. Their studies were corroborated by Waxman and Walberg (1986) who cite studies of first field

experiences that document the lowering of preservice teachers' positive attitude toward teaching and the shifting of orientation from the personal to the institutional, from the need to be humane and nurturing to the need to establish order and control.

As Goodman (1985) pointed out, there has been little research until recently on "what reality confronts preservice teachers once they are directly exposed to the classroom" (p. 42). What is the experience, from the participants' perspective, of being a preservice teacher in an early field experience? How do they make sense of that experience? What do they accept and what do they question? Often, according to Feiman-Nemser and Buchmann (1986), the failure to question the "familiar" in field experiences precludes the preservice teacher from developing warranted assertions with respect to classroom and schooling practice.

Cultural Clash, Reflective Thinking, and Field Experience

One purpose of early field experiences might be to generate the need to question the familiar, as a means of reconstructing one's current understanding of school and classroom interactions. This would appear particularly important in situations in which the culture of the school (and most often that of the preservice teacher) and the culture of the student population conflict.

This cultural clash often occurs when White, middle class preservice teachers enter urban schools. Without the benefit of reflective analysis, the problems are not likely to be recognized as cultural, but rather problems of individual (student) "pathology," deprived family background, lack of work ethic, and the like. Engaging preservice teachers in the process of reflective thinking (Dewey, 1933) in conjunction with their field experience increases the likelihood that they will be more sensitive to problems emanating from the intersection of diverse cultures and more likely to arrive at a decision or action based upon a combination of the relevant knowledge available and the contextual circumstances of the situation. To the extent that preservice teachers are able to engage in reflective thinking (i.e., consciously to identify and define schooling and classroom problems, generate

reasonable "guiding ideas" or hypotheses, and test them through intelligent action) warranted decisions and actions become more probable.

Although field experiences do not necessarily develop intelligent and ethical practice, it would be inappropriate to conclude that they are necessarily worthless or counterproductive. It is apparent from sparse research that although, as a result of field experiences, many preservice teachers become increasingly bureaucratic, rigid, custodial, conforming, and accepting of existing institutional structures (Beyer, 1984; Silvernail & Costello, 1983; Zeichner & Teitelbaum, 1982), some do not. The critical factor in resisting the negative effects of the teachers' work environment may be the use of reflective sessions in conjunction with field experience (Goodman, 1985; Tabachnick & Zeichner, 1984; Zeichner & Liston, 1987). Research into the process of reflective thinking and the construction of early field experiences that might foster reflective practice is vital to the improvement of early field experience as a central component of preservice teacher education. This article explores the problems of developing early field experiences that will engender reflective thinking and determining the effects of those experiences on preservice teachers and their students. Our ultimate goal is to better understand and improve our primary means of preparing students to work in what many perceive to be a foreign and sometimes hostile environment, there are a number of more specific objectives. These include (a) determining whether preservice teachers' ability to engage in reflective analysis is influenced by programmatic interventions, (b) determining whether reflective thinking (Dewey, 1933) influences preservice teachers' ability to process professional experiences in urban schools, especially as those experiences relate to cultural diversity and cultural clash, and (c) studying further the conceptual and empirical grounding for reflective thinking and developing a means of coding and assessing reflective thinking in journals.

We report on a study of students' ability to reflect upon and learn from field experience. We examined the effects of restructuring early field experience around planned reflective sessions in which preservice teachers critically examined encounters with teachers, students, and curriculum. We posited that preservice teachers would be more likely to become intellectually engaged and to profit

more fully from their field observations and interactions under these conditions. More specifically, through the reflective sessions preservice teachers would be more likely and better able to examine their own cultural make-up and those of their students as they relate to teaching and learning in urban schools. As a result, they would be less likely to fall victim to the negative outcomes of nonreflective field experiences reported in the literature review.

Design of the Study

Students placed in urban field sites as a part of the first and second courses in the initial teacher preparation program at The University of Toledo served as subjects. The total sample (N=56) included both males and females, as well as traditional and nontraditional students. A control group (N=28) was assigned to a typical early field experience (2 1/2 hours per week in an urban school), where they worked with regular classroom teachers in whatever way the teacher deemed appropriate. The control group was matched as closely as possible to the experimental group over criteria such as age, sex, racial/ethnic composition, and academic ability. The experimental group (N=28) had an experience designed to develop reflective thinking abilities through reflective sessions following each weekly classroom experience. Each classroom visit lasted 100 minutes and the reflective session lasted 50 minutes, for a total of 2 1/2 hours. The reflective sessions were designed to develop an awareness of the methods and outcomes of teaching as they are affected by culture and the urban schooling environment. The total time of the experience for control and treatment groups was identical.

A variety of quantitative measures and qualitative assessments were used before, during, and after the field experience. Initially, all students' ability to think hypothetically and to consider and manipulate multiple variables systematically were assessed by How Is Your Logic (Gray, 1976). During the field experience, students in both groups kept journals. In addition, discussions engaged in as a part of the treatment were videotaped to document possible changes in reflectivity during the intervention. At the end of the field experience, students in both groups completed a narrative evaluation of their field experience as a final journal entry.

We anticipated that, by comparing treatment and control groups over the various measures, this study would begin to shed light on (a) whether preservice teachers' ability to engage in reflective analysis is influenced by programmatic interventions and (b) whether reflective thinking influences preservice teachers' ability to process professional field experiences in urban settings, with particular emphasis on the role of culture in teaching and learning. The study was to aid in the development of prototypic early field experiences for teacher education programs whose goals include laying a foundation for reflective, well-grounded, and ethical practice.

Dewey and Reflective Thinking

The primary conceptual lens used to code the journals is Dewey's (1933) notion of "reflective thinking" (p. 9). For Dewey, "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and further conclusions to which it tends constitutes reflective thought (p. 9). He sees reflective thinking as the process by which a problematic situation is most likely to be resolved, thereby establishing a sense of coherence and satisfaction.

Dewey (1933) states that the function of reflective thinking is "to transform a situation in which there is experienced obscurity, doubt, conflict, disturbances of some sort, into a situation that is clear, coherent, settled, harmonious" (pp. 101-102). He illustrated and explicated the process of reflective thinking through the use of a series of phases that one employs as one reflects. Those phases are labeled as follows: phase one–suggestion; phase two–intellectualization; phase three–hypothesis generation; phase four–reasoning; and phase five–testing.

Reflective thinking begins when habit or routine action is disrupted and one experiences a feeling of doubt or conflict. One then must pause and consider alternatives to the routine (suggestion phase). These alternatives are examined with respect to the facts of the matter to define the problem more clearly (intellectualization phase). With the problem in better focus, hypotheses or guiding ideas are generated (hypothesis phase) and their ramifications examined (reasoning phase). The culmination of the reflective process is acting on one of the hypotheses, in an attempt at verification (testing

phase). Should the hypothesis that is tested be verified, the state of perplexity is resolved and coherence reestablished. Action can proceed with new and deeper understanding of one's situation.

Reflective thinking is a reconstructed logic not to be taken as a "recipe." In actuality, it is a dynamic and fluid process. Further, the process of "verification" contained within reflective thinking is not personally removed or objectified, disconnected from the self. Rather, for verification to be meaningful, it must be connected both to the outer world and to one's inner world. Reflectivity begins and ends with one's subjectivity. Reflective thinking is an intentional act of creating meaning, grasping the previously unrecognized relationships between and among elements of problematic situations. One is consciously trying to make sense of a confusing, vague, and/or ambiguous experience.

Method

Two readers familiar with Dewey's notion of reflective thinking examined all journals to determine the nature, scope, and quality of entries. Because the overarching concern of the study is the application of reflective thinking to experiences of preservice teachers in the field, readers coded the kinds of problematic situations about which subjects wrote, identified the extent to which they engaged in reflective analysis of those problems, and assessed an additional index of depth of analysis that is determined by the type of concern captured in the problematic itself. In other words, 3 factors were primary to the analysis.

Factor 1

The first factor is the number and type (category) of problem generated by the students as represented in their journal entries. The categories emerged out of the reading of the journals and were not established prior to their reading. In total, journal entries yielded 12 categories of problems (problematic situations) listed and briefly described below. The categories relate to problems encountered with respect to the preservice teachers and therefore labeled "personal," problems associated with the cooperating teacher, labeled "teacher," and problems related to the K-12 students, labeled "student."

A. Student behavior–any concern that focused on the behavior of the students in the classroom, such as control of students, management, and discipline.

B. Student learning and performance–any concern with the actual performance, abilities, or learning of students in the setting.

C. Student needs–concerns that relate to the physical, emotional, and/or psychological needs of students in the field setting.

D. Personal performance–concerns over the preservice teacher's instructional capabilities and actions.

E. Personal needs–concerns dealing with the preservice teacher's physical, emotional, and/or psychological needs.

F. Personal planning–concerns dealing with the preservice teacher's problems related to planning and time for preparation for instruction.

G. Personal career–concerns related to the preservice teacher's choice of teaching as a career and the responsibilities of being a teacher.

H. Teacher behavior–concerns that focus on the behavior of the cooperating teacher in the field setting dealing with situations that were either disciplinary or non-instructional.

I. Teacher performance–concerns over the cooperating teacher's instructional capabilities and actions.

J. Curriculum–concerns over the choice, preparation, and/or use of curriculum materials by anyone in the instructional setting.

K. Student/student interaction–concerns over encounters between or among K-12 students in the field setting.

L. Teacher/student interaction–concerns over encounters between or among students and anyone in the role of teacher.

Factor 2

The second factor considered in the analysis of journal entries is the degree to which the entry indicates that the writer engaged in the phases of reflective thinking. In brief, each problematic situation that preservice teachers entered in their journals was assessed in terms of the highest phase of reflective thinking indicated. The categories include (A) identification of a problematic situation and no further reflection, (B) identification of a problematic situation followed by the generation of at least one suggestion regarding its resolution, (C) a problematic followed by both suggestion and intellectualization, (D) a problematic reflected upon to the point of generating at least one hypothesis, (E) a problematic reflected upon through the hypothesis phase and including some reasoning about the ramifications of acting upon that hypothesis, and (F) a problematic carried through all the above phases and culminating in some action. In the analysis, entries were coded on the basis of the highest or most advanced phase of reflectivity indicated. When readers differed over the highest phase indicated in the entry, each re-examined the entry until they arrived at a mutually acceptable rating (Note 1).

Factor 3

The third and final factor in the analysis is another indicator of depth of analysis, indicated in the coding system by Levels I, II, or III. Factor 2 concerns the degree to which the journal entry shows reflective thinking in terms of phases. Factor 3 is the issue of what is called into question and the depth at which the preservice teacher deliberates upon teaching and learning. That is, to deliberate about teaching can be viewed in a number of ways with respect to the scope of activities and factors that make up the act of teaching. Some might restrict deliberation to rather specific teaching and learning acts, in relative isolation from broader social, political, economic, or cultural factors (Berliner, 1985; Smith, Cohen, & Pearl, 1969, to name two). Others would include these broader issues as vitally important and related to making even the most specific teaching decisions (Aronowitz & Giroux, 1985; Beyer, 1984; Ginsburg and Newman, 1985; Goodman, 1985; Zeichner and Teitelbaum, 1982).

Approaches to reflecting on field experiences, then, can differ over "levels of reflectivity" (Van Manen, 1977; Zeichner and Teitelbaum, 1982). The levels used to code journal entries on Factor 3 are Level I–the "technical application of educational knowledge;" Level II– "practical action;" and Level III–"critical reflectivity" (adapted from Zeichner & Teitelbaum, 1982, pp. 103-104). The first level of reflectivity involves the application of knowledge gleaned from research on teaching and/or from teaching practice, but it does not involve the questioning of educational ends. "Economy, efficiency, and effectiveness" are the primary concerns at this level of reflectivity.

The second level "is based on a conception of practical action where the problem is one of explicating and clarifying the assumptions and predispositions underlying practical affairs and assessing the educational consequences to which action leads." All educational action is seen as "linked to particular value commitments," with debate focusing on "the worth of competing educational goals" (Zeichner & Teitelbaum, 1982, p. 103).

Although concerns at Level II outstrip the instrumentality of Level I, to debate meaningfully any value position beyond the level of the relationship of a particular practice to its accompanying educational principle, one must move to the third level of reflectivity. Critical reflectivity "legitimates a notion of inquiry where education students can begin to identify connections between the level of the classroom (e.g., the form and content of curriculum, classroom social relations) and the wider educational, social, economic and political conditions that impinge upon and shape classroom practice" (Zeichner & Teitelbaum, 1982, p. 104). In Level III questions of justice, equity, and personal fulfillment become issues relevant to education, and teachers must begin to weigh the competing value positions against relevant ethical standards.

For example, the category of "student behavior" could include problems that focus on children who "misbehave" with an emphasis on finding ways that are likely to be effective in "modifying" that behavior. Students might engage in all phases of reflective thinking to resolve the problem and receive a rating on factor two indicating such. On factor three, however, this journal entry would be coded as Level I, exhibiting concerns relating only to management, control, and efficiency.

Another entry dealing with the same category of "student behavior" might exhibit a lesser degree of reflection in terms of phases represented in the entry, but nonetheless be rated on factor three as representing a deeper level analysis. A student who expressed a concern over the possible conflict between wanting to teach students to be independent and creative thinkers, while at the same time controlling them through manipulations of rewards and punishments would be judged as operating at Level II.

A rating of Level III would result if the student not only recognized multiple and potentially conflicting value orientations, but also engaged in critically evaluating each in terms of relevant ethical, cultural, emotional, and/or intellectual criteria and principles. For example, the preservice teacher might discuss the ethical implications of controlling students' behavior in particular ways while at the same time espousing the goal of teaching students to think for themselves. Again, two readers assessed all entries. Where disagreements or questions arose, re-reading and discussion between readers resulted in mutually agreeable ratings.

Results

No group differences in logical thinking ability as measured by the "How's Your Logic" instrument were found. Six members of the treatment group and five members of the control group scored at the lowest, or concrete, level of logical thinking. Twelve treatment group members and 11 control group members were assessed as being in transition from concrete to formal operational thinking. Ten members of the treatment group and 12 members of the control group fell into the formal operational category. Given this breakdown, it might be argued that the controls showed slightly higher logical reasoning ability than the treatment group members.

Tables 1 and 2 cross problematic categories found in the journals (Factor 1) with the extent to which preservice teachers engaged in Dewey's notion of reflective thinking (Factor 2), indicated by the highest phase reached for the control and the treatment groups, respectively. The cells contain total frequencies summed over all levels of factor three. In addition, the numbers in parentheses represent Level II frequencies only. No fully developed Level III entries were mutually agreed upon.

Insert Tables 1 and 2 here

Tables 1 and 2 show that the treatment group outdistanced the control group in number of problematic situations addressed. In addition, a comparison of the extent to which the two groups used Dewey's phases of reflective thinking is striking. In the control group, there were only 13 instances of hypotheses being generated (12 to the hypothesis phase only and one that included reasoning), only 1 instance of a problematic being reflected upon to the level of reasoning, and none mentioned testing hypotheses. In the case of the experimental group, there were 124 hypotheses generated (77 to the hypothesis phase only, and 47 to the reasoning or testing phase), 47 instances of problematics carried at least to the reasoning phase, and 24 hypotheses being tested in the field setting.

In looking at the Level II frequencies in parentheses below the total cell frequencies for the control and treatment groups, what can be seen is the relative absence of recognition of problematics that go deeper than technical effectiveness in the control group (2 entries). The treatment group was more likely to identify problematics that reflect a concern over multiple and at times conflicting value orientations and their effects on practice (28 entries). There are no cell frequencies for Level III of Factor 3 because no entries were found by both readers that clearly employed "critical reflection" in terms of assessing and evaluating completing value claims and orientations.

Discussion

The treatment group wrote more, in greater detail and depth, and with more analysis and application of a variety of issues that affect schooling success than did the control group. Further, the treatment group, having had the opportunity to reflect systematically and over time, analyzed themselves more deeply in regard to understanding differences between their own culture and those of the students with whom they worked in the field. This was especially true for racial differences, and to a lesser extent, differences of gender and class. Students in the treatment group (a) engaged more frequently in reflective analysis of their experiences in the field and (b) processed the field experience more fully, especially in terms of the effects of culture on teaching and learning. The following journal entry from a member of the treatment group illustrates her initial reflections on the effect of a student's home environment on school behavior and performance. In the entry, the preservice teacher discussed a visit with a cooperating teacher to the home of an elementary school student who was involved in a fight that day.

> We walked the little girl to her apartment. The building was a disaster. The window on the entrance door was shattered, there were beer cans and liquor bottles lying on the floor and the building, in general, was not kept up at all. I was almost scared to be there. I'm really not too sure what I would have done in that situation. ... I feel I learned the most from today's class...because I learned what type of environment the children actually come from, so I can try to understand a little more what they've grown up with and continue to live with. ...One thing I really appreciated was the opportunity to learn about a type of background I knew nothing really about. (E.D., 1991)

Although one might have hoped for even more analysis at deeper levels from the treatment group, it must be emphasized that they were students in introductory course work in teacher education. Many of these students were in only their second or third quarter of university study.

The most significant insights seemed to occur in the reflective sessions that were held with the treatment group following each of their field experience visits. The students showed a great deal of willingness to engage in discussion of issues of cultural clash in nearly all its forms in an effort at understanding and improving their own interaction with the students in their charge. These sessions were the most interesting source of data, perhaps because in conversation comments could be pursued by others in the group and result in greater depth of analysis. In addition, it seemed that students in the reflective sessions developed a sense of connectedness to one another that provided some support when discussions focused on highly personal and sometimes threatening issues and incidents. Further, less experienced and competent students seemed to benefit from the comments and insights of their more competent peers, and all students seemed to benefit from the comments of the faculty during the reflective sessions. In sum, the reflective sessions following each field visit provided for dialogue, enhancing the social aspect of participants' attempts to construct meaning. Because the reflective sessions were a part of the treatment and hence were experienced only by the experimental group, there is no direct comparison to be made to the controls.

Suggestions

This study suggests that field experiences in teacher education that include the opportunity to reflect on practice can increase the likelihood that preservice teachers will recognize and attempt to process more of the complexity that marks teaching and learning, especially as it unfolds in culturally diverse settings. Given the research on field experiences that documents deleterious effects in terms of preservice teachers attitudes and orientations toward teaching, this study sheds light on ways that these negative effects might be reversed. The tone of the journals in the treatment group and the reflective sessions that followed each field visit showed almost none of the negativism and loss of idealism cited in the field experience literature.

This study suggests that if there are opportunities for reflective sessions in conjunction with field experiences, preservice teachers have the capacity to reflect more deeply and in more complex ways than is seen in traditional field experiences, even at very early junctures in their education. In

addition, it begins to address Adler's concern over the paucity of empirical evidence for strategies that "promote critical reflection" (1991, p. 148). While we found no clearly established and mutually agreed upon pattern of critical reflection in the journals of our students, we did find students in the reflective sessions engaging in analyses of their experience at levels beyond technical rationality and instrumentality. They often thoughtfully examined and questioned curricular and instructional practices in schools, with an eye not merely toward performing their schooling roles more effectively and efficiently, but toward transforming the goals and purposes of their work.

One programmatic suggestion that stems from this research endeavor is to arrange field experiences and attendant seminars and course work into a sequence of well-articulated experiences, coupled with reflection on those experiences to delve into how preservice teachers make meaning and what meaning they make. Given the demographics summarized in the introduction, this sequence should focus on the notion of culture and related concepts.

Early field experiences in social and psychological foundations might focus on the concepts of culture, power, and ideology as they relate to knowledge and schooling performance. In particular, in social foundations courses and related field experiences preservice teachers might examine their own cultural and ideological structure, that of the school, and those of their students in an effort to understand the dynamics of cultural interaction. In this examination, the influence of race, class, gender, ethnicity, special needs, and other relevant "cultural" factors need to be explored so that preservice teachers begin to understand the role of culture in the educative process.

Early field experiences in psychological foundations could examine culture's effect on cognition, culture and cognitive/learning style, and the ideological underpinnings of different conceptions of learning. In addition, preservice teachers might begin to address epistemological issues raised by feminists and postmodernists regarding the different ways that people use to construct knowledge. In this way preservice teachers can begin to formulate a psychology of learning that takes cultural diversity into consideration.

The purpose for social and psychological foundations field experiences centers here on the ways in which the varying lived experience of students does or does not mesh with the expectations and operation of the schooling system. Further, preservice teachers can begin to reflect upon ways in which they might increase the likelihood that their teaching will connect with their students, thereby enhancing the chances for students to make meaning from their schooling experience.

Mid-level field experiences (methods courses) could extend the above into the analysis of existing curriculum and instructional practice and the development of different approaches that might further the goals of culturally sensitive education. Late field experiences, including student teaching or an internship, should put all of the above into practice and represent the interface of pedagogy with knowledge, culture, and power. However, all of these experiences should be accompanied with reflective, collaborative sessions to: (a) provide a context for the social construction of meaning regarding the purposes and practices of teaching and schooling, (b) protect against "backsliding" to the managerial, custodial pedagogy reported in the literature, (c) build a collaborative structure/model for student teachers to take with them into their first years of teaching, and (d) reinforce attempts at striving for change,. Finally, the coding and interpretation of journals written during the field experience is an important source of information for preservice teachers and university professors alike. The system of coding journals developed for this study provides a means for analyzing the degree and the level at which preservice teachers reflect on culture, teaching, and learning.

Table 1
Problematic Situations Generated by Degree of Reflectivity:
Control Group - Total Frequencies

Problematics	Phases of Reflectivity: Problem Only	Suggestion	Intellectualization	Hypothesis	Reasoning	Testing
A. Student Behavior	26	12	5	1	0	0
B. Student Learning and Performance	12	7	6	3 (1)	1	0
C. Student Needs	1	2	2	0	0	0
D. Personal Performance	6	3	2	2	0	0
E. Personal Needs	6	4	1	1	0	0
F. Personal Planning	0	0	0	0	0	0
G. Personal Career	0	0	1	3	0	0
H. Teacher Behavior	4	2	6	2	0	0
I. Teacher Performance	0	0	4	0	0	0
J. Curriculum	0	0	0	0	0	0
K. Student/Student Interaction	1	2 (1)	2	0	0	0
L. Teacher/Student Interaction	0	0	1	0	0	0

*Numbers in parentheses represent Level II frequencies only.
If no Level II frequencies appear, the cell frequency was zero.

Table 2
Problematic Situations Generated by Degree of Reflectivity: Treatment Group - Total Frequencies

Problematics	Phases of Reflectivity: Problem Only	Suggestion	Intellectualization	Hypothesis	Reasoning	Testing
A. Student Behavior	13	7	32	19 (2)	2 (1)	1
B. Student Learning and Performance	9	6	10	15 (2)	2	5 (1)
C. Student Needs	7	6	9	8 (1)	3 (2)	0
D. Personal Performance	10	6	24	17 (1)	5 (2)	12 (5)
E. Personal Needs	8	7	6	11 (3)	2	1
F. Personal Planning	0	0	4 (1)	1	1	0
G. Personal Career	0	0	2	4 (2)	3 (3)	2 (2)
H. Teacher Behavior	0	0	1	0	2 (1)	0
I. Teacher Performance	0	0	2 (1)	0	0	0
J. Curriculum	0	0	1	0	1 (1)	1
K. Student/Student Interaction	0	0	2	0	0	0
L. Teacher/Student Interaction	1	2	4	2	2 (1)	2 (1)

*Numbers in parentheses represent Level II frequencies only.
If no Level II frequencies appear, the cell frequency was zero.

Reference Notes

1. There are limitations to using the highest phase found in the entry as an indicator of reflective thinking. It is possible that in Entry A one might be reflecting a great deal by generating a large number of suggestions and matching those suggestions to the objective conditions present in the problematic (intellectualization phase) and never really progress to the "higher" phases of reflective thought. At the same time, in Entry B one might move through the phases without enjoining as many possibilities, thereby securing a higher reflective thinking rating on factor two than is the case with Entry A. In reading the actual entries, this was not a problem that occurred often enough to skew the results, however.

A second concern is conceptual, in that this schema runs the risk of presenting reflective thinking as a hyper-rational, linear process; and that would be an error. Conceptual distortion is avoided by using factor three as an additional indicator of depth of reflective thinking, in conjunction with the realization on the part of the raters that a linear, hyper-rational reading of reflective thinking is mistaken.

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